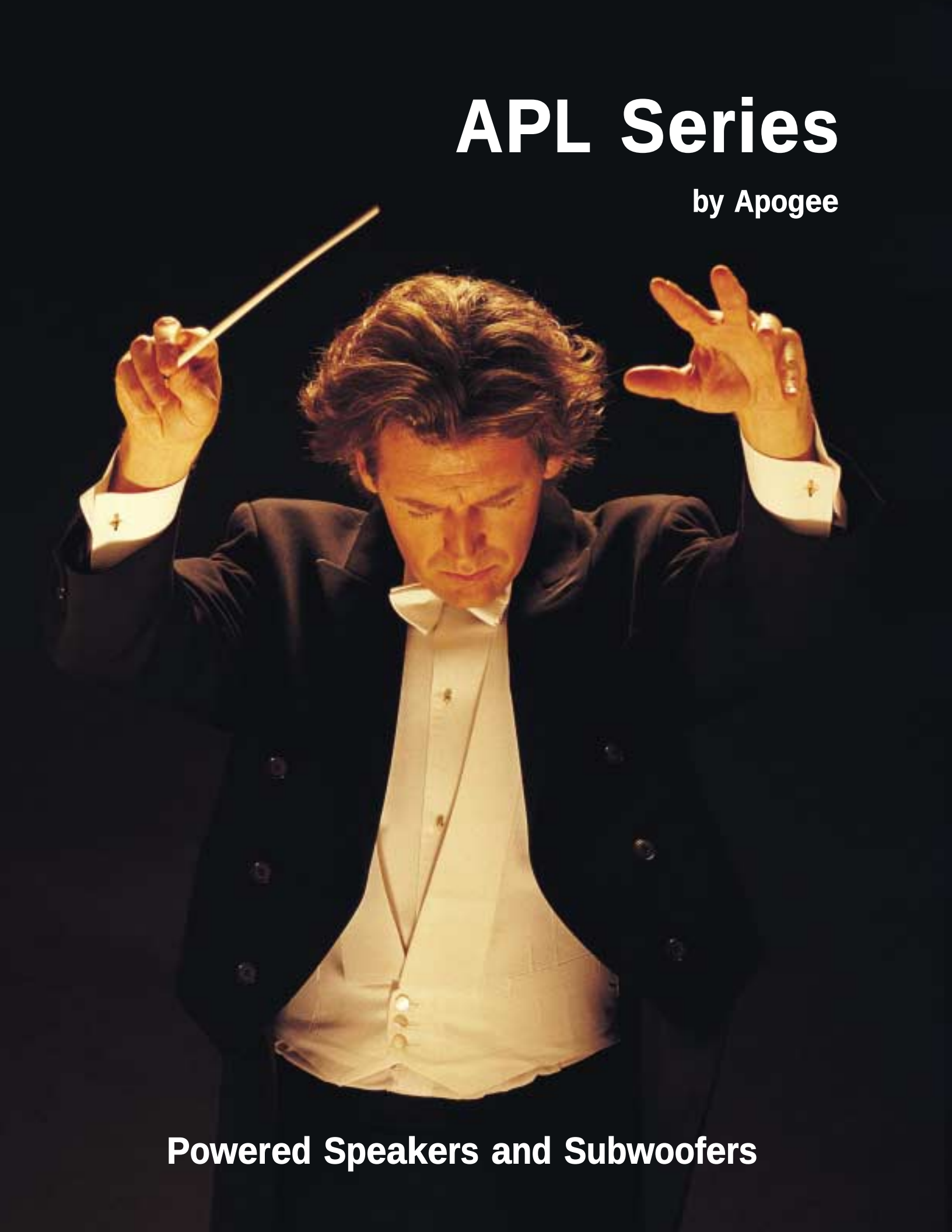
APL Series

by Apogee



Powered Speakers and Subwoofers

BENEFITS OF POWERED LOUDSPEAKERS

- *Self-contained power amplifiers and processing electronics are optimized for each loudspeaker type and model*
- *Sound quality and performance meets or exceeds that of non-powered Apogee models*
- *Amp racks and speaker cables are eliminated, saving valuable truck and backstage space and setup time*
- *Integrated design makes setup easy, assuring consistent results, show after show*
- *All models are passively cooled; there are no fans to clog or wear out, thus reducing system failures*
- *Subwoofer sleep mode auto-activates during absence of input signal for reduced power consumption and extended component life*

MAXIMUM PERFORMANCE - UTMOST SIMPLICITY

Apogee Powered Loudspeakers feature advanced amplification and intelligent signal processing circuitry integrated into proven, road-worthy speaker systems. The amplifiers and power supplies use breakthrough technologies that reduce distortion to levels normally associated with only the finest high-fidelity power amps.

These same technologies reduce heat output, eliminating the need for cooling fans while adding only a few pounds of additional weight to each powered speaker.

Our sophisticated signal processors are critically mated to the electro-acoustic characteristics of the drivers and their enclosure, taking all the guesswork out of system setup. Processing circuitry includes eighth-order linear-phase crossovers, fixed factory equalization points for maximally flat response, phase alignment circuity, and multiple independent protective limiters using Apogee's exclusive VIProtect™ voltage and current sensing circuits to maintain driver linearity and thereby reducing the likelihood of damage under abusive conditions.

Whether you're installing a small vocal system in a meeting room, or designing a large, complex system for a theatrical production, Apogee powered loudspeakers will meet your requirements with ease, allowing you to outperform your competition.

Full-Range Products

Subwoofer Products

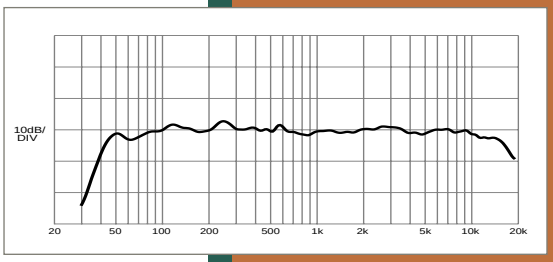
SELF-POWERED ARRAYABLE

APL-800

SELF-POWERED ARRAYABLE LOUDSPEAKER

Enclosure Type:	30° Trapezoidal, optimally-vented bass
Format:	Bi-amped, two-way, self-contained processing electronics and dual power amplifiers
Frequency Response:	48 Hz to 18 kHz ± 3 dB (on axis)
Dispersion:	H: 60° x V: 40°
Max SPL:	126 dB cont. / 132 dB peak (@1 m)
Dimensions:	19" W X 30.75" H X 17.25" D (483 X 784 X 438 mm)
Drivers:	Apogee 15" LF, 2" throat HF (both Ferrofluid® treated)
Indicators:	Power / Temp / LF Limit / HF Limit
Input:	XLR, active balanced 20k ohms, with loop-through output connector
Output:	400 WRMS LF / 400 WRMS HF
RMS Limiter:	100 ms long duration protection, VIProtect™
Peak Limiter:	3 to 5 ms transient protection VIProtect™
Contour Switch:	100 Hz high-pass, 12 dB/octave
Product Weight:	94 lbs. (42.6 kg)
AC Voltage:	85 to 245V AC auto-selecting Neutrik Powercon™ connector

The bi-amped APL-800 provides the same superior sonic quality and performance as the AE-8, but in a self-powered format. This fully arrayable speaker is highly effective when used alone or as the building block of a large system.



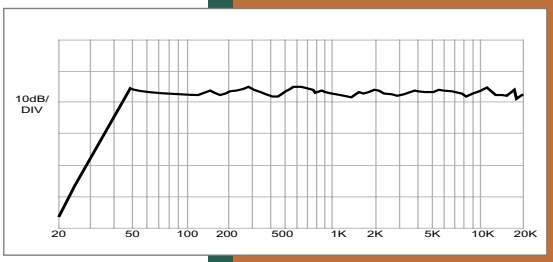
- **Bi-amped - 15" LF driver, 2" throat HF compression driver; both with Ferrofluid®**
- **Sound quality and performance consistent with non-powered AE-8**
- **Dual 400W amplifiers; 126 dB continuous / 132 dB peak maximum SPL**
- **H: 60° X V: 40° dispersion angles**

APL-500

SELF-POWERED ARRAYABLE LOUDSPEAKER

Enclosure Type:	20° Trapezoidal, optimally-vented bass
Format:	Bi-amped, two-way, self-contained processing electronics and dual power amplifiers
Frequency Response:	53 Hz to 17.5 kHz ± 3 dB (on axis)
Dispersion:	H: 90° x V: 45°
Max SPL:	125 dB cont. / 131 dB peak (@1 m)
Dimensions:	14" W X 23" H X 16.5" D (356 X 584 X 419 mm)
Drivers:	Apogee 12" LF, 1" throat HF (both Ferrofluid® treated)
Indicators:	Power / Temp / LF Limit / HF Limit
Input:	XLR, active balanced 20k ohms, with loop-through output connector
Output:	400 WRMS LF / 400 WRMS HF
RMS Limiter:	100 ms long duration protection, VIProtect™
Peak Limiter:	3 to 5 ms transient protection VIProtect™
Contour Switch:	100 Hz high-pass, 12 dB/octave
Product Weight:	80 lbs. (36.2 kg)
AC Voltage:	85 to 245V AC auto-selecting Neutrik Powercon™ connector

The bi-amped APL-500 provides the same superior sonic quality and performance as the AE-5, but in a self-powered format. This fully arrayable speaker is highly effective when used alone or as the building block of a large system.



- **Bi-amped - 12" LF driver, 1" throat HF compression driver; both with Ferrofluid®**
- **Sound quality and performance consistent with non-powered AE-5**
- **Dual 400W amplifiers; 125 dB continuous / 131 dB peak maximum SPL**
- **H: 90° X V: 45° dispersion angles**

SELF-POWERED COMPACT

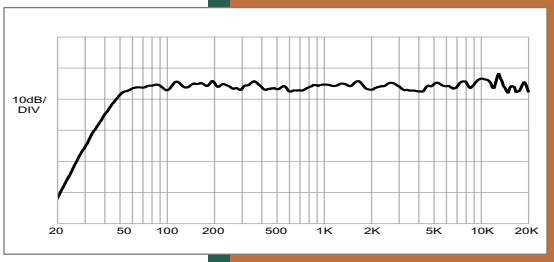
APL-220

SELF-POWERED COMPACT LOUDSPEAKER

Enclosure Type:	20° Trapezoidal, optimally-vented bass
Format:	Bi-amped, two-way, self-contained processing electronics and dual power amplifiers
Frequency Response:	53 Hz to 21 kHz ± 3 dB (on axis)
Dispersion:	H: 60° x V: 40°
Max SPL:	127 dB cont. / 133 dB peak (@1 m)
Dimensions:	14" W X 23.1" H X 16" D (356 X 587 X 406 mm)
Drivers:	Apogee 12" LF, 2" throat HF (both Ferrofluid® treated)
Indicators:	Power / Temp / LF Limit / HF Limit
Input:	XLR, active balanced 20k ohms, with loop-through output connector
Output:	400 WRMS LF / 400 WRMS HF
RMS Limiter:	100 ms long duration protection, VIProtect™
Peak Limiter:	3 to 5 ms transient protection VIProtect™
Contour Switch:	100 Hz high-pass, 12 dB/octave
Product Weight:	75 lbs. (34 kg)
AC Voltage:	85 to 245V AC auto-selecting Neutrik Powercon™ connector

The internally-powered and bi-amped APL-220 is designed for applications requiring extremely high power and tight directional control. It is fully arrayable with extended high-end for superb sonic performance.

- **Bi-amped - 12" LF driver, 2" throat HF compression driver; both with Ferrofluid®**
- **400W low-frequency and 400W high-frequency amplifiers**
- **127dB continuous / 133dB peak maximum SPL**
- **H: 60° X V: 40° dispersion angles**



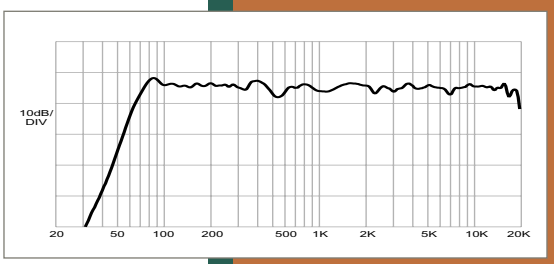
APL-110

SELF-POWERED COMPACT LOUDSPEAKER

Enclosure Type:	20° Trapezoidal, optimally-vented bass
Format:	Bi-amped, two-way, self-contained processing electronics and dual power amplifiers
Frequency Response:	65 Hz to 18 kHz ± 3 dB (on axis)
Dispersion:	H: 60° x V: 40°
Max SPL:	123 dB cont. / 129 dB peak (@1 m)
Dimensions:	12" W X 19" H X 12" D (305 X 482 X 305 mm)
Drivers:	Apogee 10" LF, 1" throat HF (both Ferrofluid® treated)
Indicators:	Power / Temp / LF Limit / HF Limit
Input:	XLR, active balanced 20k ohms, with loop-through output connector
Output:	300 WRMS LF / 150 WRMS HF
RMS Limiter:	100 ms long duration protection, VIProtect™
Peak Limiter:	3 to 5 ms transient protection VIProtect™
Contour Switch:	100 Hz high-pass, 12 dB/octave
Product Weight:	41 lbs. (18.6 kg)
AC Voltage:	85 to 245V AC auto-selecting Neutrik Powercon™ connector

The internally-powered and bi-amped APL-110 provides very high power in an exceptionally compact enclosure. This versatile speaker system can handle large venues when augmented with a subwoofer such as the APL-10 or APL-12.

- **Bi-amped - 10" LF driver, 1" throat HF compression driver; both with Ferrofluid®**
- **300W low-frequency and 150W high-frequency amplifiers**
- **123dB continuous / 129dB peak maximum SPL**
- **H: 60° X V: 40° dispersion angles**



SELF-POWERED SUBS

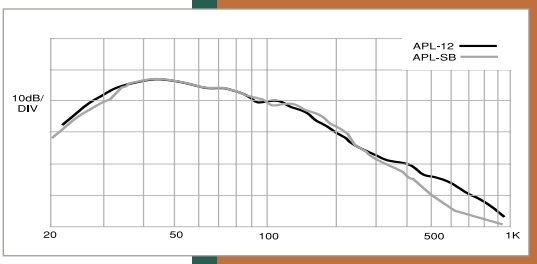
APL-12
APL-SB

SELF-POWERED CONCERT SUBWOOFER SYSTEMS

APL-12 Shown

Enclosure Type:	**APL-12 -** Rectangular, optimally-vented bass **APL-SB -** Rectangular, optimally-vented bass
Format:	Self-contained power amplifiers with integrated processing electronics
Frequency Response:	**APL-12 -** 32 Hz to 100 Hz ± 3 dB (on axis) **APL-SB -** 35 Hz to 100 Hz ± 3 dB (on axis)
Dispersion:	Omni-directional
Maximum SPL:	**APL-12 -** 134 dB cont. / 140 dB peak (@1 m) **APL-SB -** 128 dB cont. / 134 dB peak (@1 m)
Dimensions:	**APL-12 -** 44.75" W X 30" H X 22.5" D (1137 X 762 X 572 mm) **APL-SB -** 30" W X 22.5" H X 21" D (762 X 572 X 533 mm)
Driver:	**APL-12 -** Dual Apogee 18" with Ferrofluid® **APL-SB -** Single Apogee 18" with Ferrofluid®
Input:	XLR, active balanced 20k ohms, w/ loop-through output
Output:	**APL-12 -** 2000 WRMS total, dual amplifiers **APL-SB -** 1000 WRMS total, single amplifier
RMS Limiter:	100 ms integ, long duration protection, VIProtect™
Peak Limiter:	3 to 5 ms transient protection, VIProtect™
High-Pass Output:	100 Hz, 24 dB/octave
Phase Rev Switch:	Switchable Pin 2+ / Pin 3+
Product Weight:	**APL-12 -** 214 lbs. (97 kg) **APL-SB -** 120 lbs. (54.4 kg)
AC Voltage:	120V AC (230V AC available) Neutrik Powercon™ inlet

- **2000 WRMS for superb transient response (1000 WRMS for APL-SB)**
- **Integrated processor circuitry for quick and accurate system setup**
- **Patented amplifier technology vastly reduces heat and lengthens system life**
- **Sleep mode activates automatically during absence of input signal for extended component life and reduced power consumption**



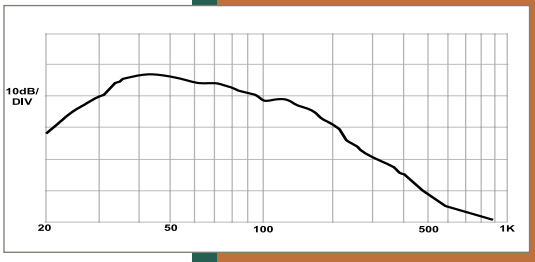
The APL-12 & APL-SB powered subwoofers incorporate internal amplifiers and intelligent, front-end signal processing into robust enclosures designed for concert touring, AV presentations, and fixed installations. The APL-12 employs dual drivers and amplifiers; the APL-SB uses a single driver and amplifier. Both provide powerful, deep bass with rapid transient response.

APL-10

SELF-POWERED CONCERT SUBWOOFER SYSTEM

Enclosure Type:	20° Trapezoidal, optimally-vented bass
Format:	Self-contained power amplifiers with integrated processing electronics
Frequency Response:	38 Hz to 100 Hz ± 3 dB (on axis)
Dispersion:	Omni-directional
Maximum SPL:	131dB cont / 137dB peak (@1m)
Dimensions:	32" W X 22.5" H X 24" D (813 X 572 X 610 mm)
Driver:	Dual Apogee 15" with Ferrofluid®
Input:	XLR, active balanced 20k ohms, w/ loop-through output
Output:	2000 WRMS total, dual amplifiers
RMS Limiter:	100 ms integ time, long duration protection, VIProtect™
Peak Limiter:	3 to 5 ms fast acting transient protection, VIProtect™
High-Pass Output:	100 Hz, 24 dB/octave
Phase Rev Switch:	Switchable Pin 2+ / Pin 3+
Product Weight:	145 lbs. (65.8 kg)
AC Voltage:	120V AC (230V AC available) Neutrik Powercon™ inlet

- **2000 WRMS for superb transient response**
- **Integrated processor circuitry for quick and accurate system setup**
- **Patented amplifier technology vastly reduces heat and lengthens system life**
- **Sleep mode activates automatically during absence of input signal for extended component life and reduced power consumption**



The APL-10 self-powered subwoofer is designed as a companion to the full-line of AE, FH, and APL loudspeaker systems. Compact, easy to transport and install, the APL-10 is capable of very high sound pressure levels and delivers a deep, rich response for theatrical, touring, AV, and fixed installations.

AMPLIFIER PANEL DETAILS

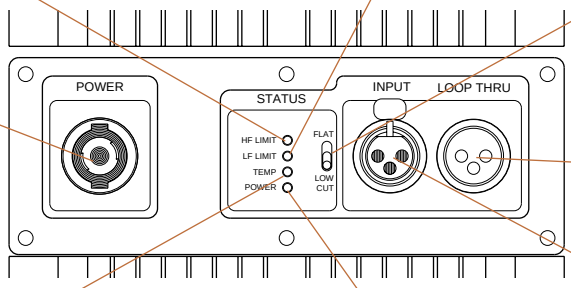
POWERED FULL-RANGE SPEAKERS

HF LIMIT - Illuminates when VIProtect™ driver safeguard engages for high-frequency driver.

LF LIMIT - Illuminates when VIProtect™ driver safeguard engages for low-frequency driver.

FLAT/LOW CUT SWITCH - Engages 12 dB/octave, 100 Hz high-pass filter.

POWER - Neutrik Powercon® AC Inlet connector.



LOOP THRU - Daisy-chain audio signal output to next self-powered speaker.

TEMP - Indicates thermal shutdown.

POWER - Indicates AC voltage applied.

INPUT - 20k ohms, active balanced signal input.

POWERED SUBWOOFER SPEAKERS

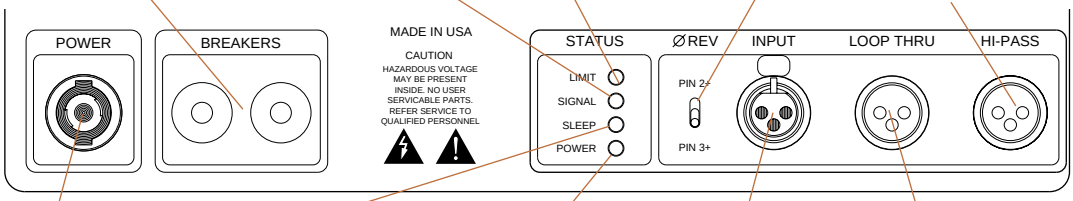
SIGNAL - Indicates presence of audio input signal.

PHASE REV - Allows inversion of input signal phase.

BREAKERS - Individual AC circuit protection for each amplifier.

LIMIT - Indicates VIProtect™ driver safeguard has been engaged.

HI-PASS OUT - 100 Hz, 24dB/octave, filtered signal to feed full-range speakers.



SLEEP - Illuminates when power-saving sleep mode is activated.

INPUT - 20k ohms, active balanced signal input.

POWER - Neutrik Powercon® AC Inlet connector.

POWER - Indicates AC voltage applied.

LOOP THRU - Daisy-chain audio signal output to next self-powered speaker.

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